

November 6, 2002

PUBLIC UTILITIES COMMISSION  
Electric Energy Conservation Programs  
(Chapter 380)

ORDER ADOPTING RULE  
AND STATEMENT OF  
FACTUAL AND POLICY BASIS

WELCH, Chairman; DIAMOND and NUGENT, Commissioners

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## **I. SUMMARY**

In this Order we approve revisions to Chapter 380 of the Maine Public Utilities Commission's (Commission's) Rules. The revisions implement portions of the requirements of the Conservation Act, enacted by the Maine Legislature as P.L. 2002, ch. 624. Through the revisions, we define "low-income residential consumers" and "small business consumers" and establish the test for cost effectiveness, as directed in the Conservation Act. In addition, we include certain terms of the Act that will allow Chapter 380 to be a comprehensive compendium of the most significant requirements of the statewide electric conservation program

## **II. BACKGROUND**

Current Chapter 380 (Chapter 380-O) of the Commission's Rules was promulgated in response to An Act to Secure Environmental and Economic Benefits, enacted as P.L. 1999, ch. 336. This Act amended 35-A M.R.S.A. § 3211 and authorized the State Planning Office (SPO) to coordinate the development of a state energy policy and to guide the development of statewide conservation programs to be implemented by transmission and distribution (T&D) utilities. The SPO's duties included creating overall objectives and strategies, reviewing and approving utility implementation plans, and monitoring and evaluating T&D utility programs. The amended section 3211 required the Commission to establish total conservation program expenditures for each T&D utility and to assess T&D utilities to fund the efforts of the SPO. We adopted existing Chapter 380 to implement the provisions of section 3211.

During the second session of the 120<sup>th</sup> Legislature, the Legislature passed An Act to Strengthen Energy Conservation (the Conservation Act, or the Act)<sup>1</sup> that became P.L. 2001, ch. 624, when the Governor signed the Act on April 5, 2002. The Conservation Act repeals section 3211 and replaces it with section 3211-A, which establishes new terms that govern an electric energy conservation program in Maine. The Act directs the Commission to develop and implement electric energy conservation

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<sup>1</sup> The Conservation Act may be found on the Commission's web page, [www.state.me.us/mpuc](http://www.state.me.us/mpuc), by accessing the "Electric Conservation Activity" site.

programs that are consistent with the goals and objectives of an overall energy conservation program strategy that the Commission must establish. The programs must be cost effective, according to a definition that the Commission also must establish by order or rule. Finally, the Act requires the Commission to define “low-income residential consumers” and “small business consumers” by rule.

In anticipation of the rulemaking to revise Chapter 380 to reflect the Conservation Act, we opened an Inquiry, Docket No. 2002-272, to receive comments and suggestions on the definitions of “low income residential consumers” and “small business consumers.”<sup>2</sup> In addition, in Docket No. 2002-161, we implemented interim conservation programs. As part of that process, we established a cost effectiveness test for interim programs, after proposing a test and receiving comments from interested persons. We used comments we received in the inquiry and in the development of the interim programs to develop a draft rule, which we issued through a Notice of Rulemaking (NOR) on August 20, 2002.

Consistent with the Notice of Rulemaking, we held a public hearing on the proposed rule on September 19, 2002. Office of the Public Advocate (OPA), Maine Community Action Association (MCAA), Bangor Hydro-Electric Company (BHE), Central Maine Power Company (CMP), and Maine Public Service Company (MPS) testified at the public hearing.

The Notice of Rulemaking set September 30, 2002, as the deadline for written comments on the proposed rule. Maine Energy Efficiency Coalition<sup>3</sup> (MEEC), OPA, MCAA, BHE, and CMP submitted written comments.

We discuss the comments we received during this rulemaking throughout the remainder of this Order.

### **III. DISCUSSION OF INDIVIDUAL SECTIONS**

#### **A. Section 1: Purpose**

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<sup>2</sup> The following entities submitted written comments or testified at the technical conference: Maine State Housing Authority, Maine Community Action Association, Finance Authority of Maine, Department of Economic and Community Development, Office of the Public Advocate, Maine Small Business Development Centers, Combined Energies, Residential/Small Commercial Service Providers, Central Maine Power Company, Bangor Hydro-Electric Company, and Maine Public Service Company.

<sup>3</sup> The MEEC includes the Natural Resources Council of Maine, Maine Council of Churches, Maine Public Advocate Office, Maine Community Action Association, Maine Global Climate Change, Inc., Chewonki Foundation, Industrial Energy Consumer Group, Maine Center for Economic Policy, Coastal Enterprised, Inc., Maine Council of Senior Citizens, S&S Technologies, and AARP.

Section 1 establishes that the purpose of Chapter 380 is to implement portions of the Conservation Act. No commenter proposed a revision to this section of the proposed rule, and the change we made in the final rule is non-substantive.

B. Section 2: Definitions

1. Definition Section. Section 2 contains the definitions of terms used in the final rule. Many of the definitions are derived directly from 35-A M.R.S.A. § 3211-A. The only terms over which the Commission may exercise any degree of discretion are “low-income residential consumers” and “small business consumers.” Each of these groups must be the target of at least 20% of the conservation program funding developed and implemented by the Commission.

2. Subsection D - Definition of Low-income Residential Consumer. In our inquiry, every commenter but one suggested that we adopt the criteria for receiving benefits under the Low Income Home Energy Assistance Program (LIHEAP) as the definition for low-income consumers within this Chapter. Generally, these commenters asserted that adoption of the LIHEAP criteria will ease the administrative burden associated with low-income programs because community action agencies (CAPs) already take applications and certify eligibility based upon consistent statewide criteria. The criteria are established annually through a planning and rulemaking procedure carried out by the Maine State Housing Authority (MSHA), which receives input from a wide range of low-income stakeholders. In addition, the criteria – or, more specifically, acceptance for LIHEAP assistance – are used for a variety of low-income assistance programs such as Telephone Lifeline and Linkup programs and the utilities’ Electric Low-income Program (ELP). Commenters asserted that this uniform approach will reduce confusion and is consistent with other utility-sponsored electric programs.

SESCO, Inc. submitted the only comments advocating a different definition for low-income consumers. According to SESO, the LIHEAP criteria will restrict the group of customers for whom these special conservation programs should be implemented. Because LIHEAP-qualified customers already have other energy efficiency programs available to them, SESO asserted that using the same eligibility for Commission-sponsored programs unfairly duplicates the effects of the existing programs. SESO urged a wider definition, so that a larger number of customers would be eligible. Specifically, SESO supported definitions that include:

- 1) a wider group of assistance recipients, including LIHEAP, TANF, food stamps, and housing subsidies;
- 2) residents in neighborhoods representing the poorest 20% of the state by per capita income; or
- 3) households at a greater percentage of federal poverty guidelines, in order to include “working poor” families – suggested at or below 250% of federal poverty guidelines, with renters and senior citizens qualifying at up to 300%.

The proposed rule defined “low-income consumer” using the LIHEAP criteria.

We are persuaded that consistency with existing State programs will produce significant administrative savings and will eliminate potential confusion by those who are administering or benefiting from the program. Further, we expect our program designs to complement, rather than compete with, current programs such as LIHEAP and therefore do not see any conflict with these programs.

The final rule does not require a consumer to become certified for LIHEAP benefits to be considered a low-income consumer. The rule simply states that the statewide LIHEAP criteria apply for purposes of this rule. As a practical matter, specific programs may require that a consumer be certified as eligible before he or she may receive the benefits of the program.

In their comments in this rulemaking, OPA and MCAA support the definition of “low-income consumer.” MCAA notes that the definition “provides for the broadest eligibility for low-income people while retaining a standard of measuring eligibility that is used to determine eligibility for a wide variety of low-income programs.” MCAA comments that the group of customers eligible for LIHEAP (and thus considered low-income within the rule) is far larger than the group actually receiving LIHEAP and asserts that very few low-income customers would not be LIHEAP-eligible.<sup>4</sup> OPA and MCAA both comment that the definition will resolve administrative issues, reduce confusion, and facilitate provision of services to the appropriate customers. No other comments were received and we have made no changes to the definition in the final rule.

However, in response to questions by Commission staff at the public hearing, MCAA and CMP discussed the advantage of targeting a low-income program to an entire neighborhood, despite the possibility that the neighborhood might contain both low-income and non-low-income citizens. MCAA commented that raising the value of all houses in a low-income neighborhood improves the entire neighborhood and can serve as a demonstration that spurs other neighborhoods to carry out the same improvements. CMP commented that offering a program to a neighborhood lowers the perceived inequity of treating neighbors differently from one another. In its written comments, MEEC cites statutory authority under which the Commission may target pilot programs to entire neighborhoods. MEEC comments that a “whole neighborhood” approach is acceptable if the number of ineligible customers is limited, and suggests that Section 4(B), allowing programs with unquantifiable benefits, might also allow this approach. Thus, despite the concerns we expressed in the NOR, we conclude that we will consider such a delivery approach when developing low-income programs. We will attempt to estimate the number of low-income customers (as opposed to non-low-income customers) who participate, but we will consider it acceptable to offer a program to all customers in the neighborhood, rather than preclude non-low-income persons. No revision to the final rule is necessary to allow this approach.

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<sup>4</sup> MCAA states that these few consumers would likely be eligible for other assistance.

3. Subsection H - Definition of Small Business Consumer. In our inquiry, suggestions for the definition generally fell into two categories. The first focused on the number of employees and the revenue generated, which are criteria used to access other governmental programs, notably those administered by the Finance Authority of Maine (FAME) and the Department of Economic and Community Development (DECD). FAME and DECD target businesses with fewer than 50 employees or less than \$5 million in revenues, while the Small Business Development Centers suggested targeting businesses with fewer than 100 employees and maintaining uniformity statewide. We understand that 98% of Maine businesses have fewer than 100 employees, while 96% of Maine businesses employ fewer than 50 people.

The second approach focused on electricity usage, in particular T&D utility rate classifications. Each investor-owned T&D utility contains a rate classification for business customers with a maximum monthly kW load below a particular level.<sup>5</sup> Some commenters asserted that this breakpoint is convenient and verifiable because a customer's electric delivery bill contains the customer's rate class. Using the utility rate class breakpoint is consistent with activities delivered by T&D utilities.

In establishing a proposed definition of small business consumer, we considered two principles. First, we intended to choose a definition that would cause the statutory 20% funding target to reach customers who traditionally have not benefited from conservation programs. Second, we intended to coordinate our conservation efforts with other State initiatives that assist small business consumers.

With these goals in mind, the proposed rule defined a small business consumer to be a business with fewer than 50 employees. This definition is consistent with that used by the State's business development community, allowing our programs to complement the economic development and loan programs offered by other State government entities. We chose 50 (rather than 100) employees because this definition is consistent with criteria used by more State organizations with which we are certain to interact as we implement our programs. We rejected a suggested definition of 20 or fewer employees, because these levels could exclude some small businesses that have been underserved by previous programs. We did not propose to include company revenue as part of our definition, despite its inclusion in many agencies' criteria, because a revenue criterion might be difficult to obtain and confirm for the hundreds of customers who will participate in our programs.

Utility rate class definitions are convenient when utilities are implementing the programs, but are less convenient when that is no longer the case. Further, utility rate class definitions are not consistent across the state, which could complicate program marketing and implementation. We also rejected utility rate class definitions because electricity use may be a poor indicator for the customers that the Act

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<sup>5</sup> CMP's SGS customers are 20 kW and below, BHE's General Service rate customers are 25 kW and below, and MPS's General Service rate customers are 50 kW and below.

intended to assist through its 20% target requirement. There may be customers with electricity-intensive business processes who have limited staff to address issues of energy efficiency. It is arguably more important to provide assistance to these customers than to customers with lower electricity use. A definition that depends on employment level will allow such customers to benefit from programs targeted to small businesses.

The proposed definition clarified the treatment of part-time employees and seasonal businesses. As discussed elsewhere in this order, we consider it important to maintain the flexibility to consider unique situations. With this in mind, the final rule broadens our ability to consider the appropriate treatment of businesses with varying employment levels.

In addition, the definition stated that, if a company has businesses in multiple locations, the number of employees in all locations shall be combined when determining the number of employees to be used under this definition. This provision excludes some smaller locations that are owned by larger chains, thereby limiting small business assistance to businesses that do not have access to the energy expertise that may be present through ownership by a regional or national organization.<sup>6</sup>

In its comments in the rulemaking, OPA supports the proposed definition of “small business consumer,” commenting that this approach will resolve administrative issues, reduce confusion, and facilitate provision of services to the appropriate customers. No person commented on our concern that treatment of businesses with multiple locations would be inconsistent with their treatment by other agencies.<sup>7</sup>

OPA also cautions that the level of overall funding will necessitate that programs be targeted to narrowly defined niches within the broad definition. We agree, and do not consider the Act’s requirement to target 20% of funding to small business customers to limit our ability to target specific programs to smaller groups. Indeed, the definition of small business within this rule defines the group of customers to whom we must target 20% of total funding pursuant to the Act. It does not define the customers who are eligible for any individual program. For example, a program might be available to all businesses and government organizations, regardless of size. When tracking the performance of the program, we would put in place a mechanism for determining the portion of funding that benefited “small business consumers” as they are defined in this rule.

### C. Section 3: Conservation Programs

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<sup>6</sup> This treatment of businesses with multiple locations may be inconsistent with their treatment by other agencies dealing with small businesses.

<sup>7</sup> In our view, the commonly understood meaning of “business” does not include government entities, and thus, we do not treat government entities with 50 or fewer employees as small businesses for purposes of this rule.

Section 3 of the rule incorporates the terms in the Conservation Act that require the Commission to establish goals for the conservation programs. We include a substantial portion of the Act so that Chapter 380 will be a comprehensive compendium of the basic State conservation program requirements.

Subsection A of section 3 restates the criteria, in the form of high level goals, that the Commission must consider in selecting its portfolio of programs.

Subsection B states that the Commission shall establish goals, objectives, and strategies that will govern selection of conservation programs. We completed the first phase of that process by issuing our Order Establishing Goals, Objectives and Strategies for Conservation Programs on September 24, 2002, in Docket No. 2002-162. In that order, we state that the Act directs the Commission to develop an "overall energy strategy." We further state that, in our view, it is not appropriate or reasonable for the Commission to develop a statewide energy policy that encompasses all fuels, nor is it necessary for successful implementation of the Act. It is more appropriate that we develop a group of goals, objectives, and strategies that will govern an electricity conservation program portfolio in a comprehensive manner. Subsection B reflects this approach, by requiring us to determine goals, objectives, and strategies for the statewide program.

Subsection B also establishes the immediate and longer-term processes the Commission will follow to establish and revise goals, objectives, and strategies for conservation programs. The Act directs us to determine a schedule to revise our objectives and overall energy strategy. In the final rule, we changed the timeframe within which we must review goals and objectives from two years to three. During the early years of the program, all aspects will be under continuous review, and we expect that some goals, objectives, or strategies will be revised in less than two years. However, we do not wish to interrupt the effort that will be required to complete ongoing program design to thoroughly review all goals, objectives, and strategies. Thus, we have increased the time requirement for doing so.

Subsection C summarizes the requirements in the Act that the statewide portfolio of conservation programs must be cost effective, must attain the goals, objectives, and strategies determined by the Commission, and must be delivered without exceeding the assessed funds.

No person suggested changes to Section 3. However, at the public hearing, MCAA expressed the concern that citizens in rural areas worry that they are "perceived to be unimportant." MCAA presents this concern as being generic in nature, rather than specific to the conservation program being considered here. However, MCAA suggests that, when possible, we craft programs that are smaller than a "one size fits all" approach that might be appealing administratively, to allow programs to reach all segments of the population. To further address this concern, MCAA suggests that the Commission ensure that there is a means by which citizens or groups may inform the Commission when they are not well-represented by the portfolio of programs.

The Act requires that program funds be apportioned among customer groups and geographic areas in a manner that allows all customers to have a reasonable opportunity to participate in conservation programs.<sup>8</sup> We will actively incorporate this requirement into our program planning. Indeed, we have already done so by expanding the Building Operator Certification program to include Northern Maine consumers. We have been thorough in allowing any interested group to provide input into all our decisions, and we will continue to do so. We will follow the practice of many other states, by monitoring our portfolio with geographic and demographic diversity in mind. Thus, while we have not expanded section 3 in the final rule for this purpose, we consider the provision and our own actions to be responsive to MCAA's concern. In addition, when, in Docket No. 2002-162, we consider ongoing procedures for program development, we will remain mindful of MCAA's comments.

Finally, we add a sentence to subsection (3)(C), based upon comments on cost effectiveness tests, described below.

D. Section 4: Cost Effectiveness Criteria

1. Background. In Docket No. 2002-161, we discussed the background of, and offered options for, determining the cost effectiveness of interim programs.<sup>9</sup> In that proceeding, we decided to rely on the framework established in the current version of Chapter 380 (Ch. 380-O) to determine the cost effectiveness of individual interim programs and of the portfolio of programs. Under that framework, we rely on the All Ratepayers Test to screen for cost effectiveness, but we also consider whether a program or group of programs is likely to have a significant impact on T&D utility rates.

Cost effectiveness testing for conservation programs has a long history before this Commission. Twenty-five years ago, the Electric Rate Reform Act authorized the Commission to order electric utilities to submit programs for implementing energy conservation techniques.<sup>10</sup> Throughout this time period, we have periodically considered how to test whether proposed conservation measures are likely to minimize electricity costs. The debate typically is framed in terms of which of various cost effectiveness tests should be applied. That debate is generally reducible to a debate over our goals in adopting conservation programs.

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<sup>8</sup> See 35-A M.R.S.A. § 3211-A (1)(B) and (2)(I).

<sup>9</sup> The Proposed Order Establishing Goals and Criteria for Interim Conservation Programs, issued April 26, 2002 in Docket No. 2002-162, and the Order Establishing Interim Conservation Programs issued June 13, 2002 in Docket 2002-161 contain extensive discussion of cost effectiveness tests. Both documents are available on our web page, [www.state.me.up/mpuc](http://www.state.me.up/mpuc) in the "Electric Conservation Activity" site. Comments from interested persons are available on the Commission's Virtual Docket, also available on our web page.

<sup>10</sup> See P.L. 1977, ch. 521.



Historically, the Commission has considered three cost effectiveness tests. The primary test has been the All Ratepayers Test (ART), which measures whether a conservation program provides the same level of end use amenity (e.g. lighting or hot water) at a lower overall net cost to utilities and ratepayers taken together. The ART generally measured savings in terms of avoided generation and delivery costs. The second test has been the Rate Impact Test, which measures the impact of a program on the average electric utility rate. Finally, the Societal Test is an expansion of the ART, in that it includes environmental and other social benefits external to the transaction between the utilities and their customers.

The Commission's use of these tests was prescribed in earlier versions of Chapter 380. Chapter 380 was developed in the 1980's and remained substantially unchanged until 1999, when legislation associated with electric restructuring shifted the responsibilities for conservation programs within the State. During the 1980's and 1990's, the purpose of Chapter 380 was to provide a set of rules under which utilities could implement conservation measures without seeking Commission approval. However, Chapter 380 allowed utilities to seek approval for programs that did not meet the three tests.<sup>11</sup> Thus, the tests were not absolute limiters. The Commission could exercise its judgment in approving additional programs if it determined that such programs exhibited benefits not captured in the three cost effectiveness tests.

The current Conservation Act is broad in scope and includes goals that extend well beyond savings associated with generation and delivery costs. Increased consumer awareness, sustainable economic development, reduced environmental impact, the creation of more favorable market conditions for efficient products, a 20% funding target for low-income and small business consumers, and geographic and income diversity are all statutory goals that are likely to be difficult to accomplish under a strict cost effectiveness test. At the public hearing, the Public Advocate urged the Commission to be flexible in its use of cost effectiveness tests. In the Public Advocate's view, the Legislature has encouraged the Commission to "come to its own conclusions about a fair distribution of benefits." He comments that "there's no way to avoid the exercise of judgment in the design of cost effectiveness screens." We agree that our decisions regarding cost effectiveness criteria must include the flexibility to balance all the goals in the Conservation Act – whether strictly quantifiable and related to electrical generation and delivery, or less quantifiable and related to broader goals in the Act. At a minimum, we must retain the flexibility the Commission had under earlier provisions of Chapter 380. To comply with the Act, we must have as

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<sup>11</sup> In adopting the 1987 version of Chapter 380, the Commission stated that the rule permits utilities to seek program by program approval, but that the Commission intends that programs that satisfy the tests set out in the rule and that do not exceed 2% of annual revenues should not be brought to the Commission for approval. Docket No. 86-81, Order Adopting Rule, p.6. In 1989, the Commission stated: "This rule authorizes utilities to undertake certain demand side energy management programs not specifically ordered or approved by the Commission, if the program is consistent with the standards set forth in this Rule." Chapter 380, § 1 effective January 1, 1989.

much flexibility as possible while retaining a consistent, economically rational approach to program design.

Currently, most other states – and particularly Northeast states -- use variations of the ART, variously called Total Resource Cost Test, Modified Total Resource Cost Test, Societal Test, or Modified Societal Test. These tests are distinguished by the fact that they include costs or benefits associated with "non-electric" resources (e.g., increased use of gas or water), customer O&M expenses (e.g., reduced maintenance), and improved ability to pay electric bills. They may include "spillover effects" (e.g., adoption of additional efficiency measures by customers outside of the efficiency program). Societal Tests may include costs and benefits accruing outside of Maine, such as environmental effects. Some states attempt to include economic development and job creation benefits. On the other hand, some states consider cost effectiveness from the participant's perspective or from the utility's perspective.

Quantification of some of these costs and benefits is difficult. Some states solve this problem by creating a percentage adder to represent environmental or other non-quantifiable costs. In general, these adders are not meant to represent a measured level of benefit, but are meant to acknowledge that some benefit exists and should be recognized.

Appendix A contains a summary of the most common costs and benefits included in commonly considered cost effectiveness tests. Appendix B contains a summary of our understanding of other states' cost effectiveness tests.

2. Subsection A – Modified Societal Test. In subsection A of the proposed rule, we defined a Modified Societal Test (MST) as the cost effectiveness test that will be used for ongoing (as opposed to interim) conservation programs. The proposed rule defined the MST as the ratio between benefits and costs.

OPA supports the MST, but suggests that it be expressed as the difference (rather than a ratio) between benefits and costs. OPA comments that the magnitude of this difference (using a net present value calculation) is the "true economic value provided by the conservation measure or program" and that the MST should at least consider the net difference. In earlier comments and at the public hearing, OPA emphasized that, regardless of whether a ratio or a "net benefits" approach is used, the test should not be so rigid as to eliminate the Commission's ability to use judgment in balancing goals.

In our view, the choice of using a ratio approach (as in the proposed rule) or a net benefits approach (as suggested by OPA) will have very little influence on our choice of programs, if any at all. For a fixed budget, each approach would yield the identical decision. Absent a fixed budget, implementing programs with the greatest net benefit might focus funding on a small segment of the population, thereby conflicting with our efforts to offer programs to a wide variety of consumers. In

either event, we agree with OPA's opinion that we should not choose programs rigidly based on the level of a ratio or net benefits. Notwithstanding these comments, we conclude that expressing the MST in terms of absolute dollars might make a program's effect more intuitively understandable without changing the intent or the impact of the proposed rule. Thus, we have revised subsection 4(A) and subsection 4(B)(1) of the final rule to express the MST as a net benefit measurement. We expect that we will express the results of the MST in terms of both dollars and a ratio, to retain the advantage of each.

The proposed rule included in the MST all costs and benefits that are reasonably quantifiable, regardless of who pays or experiences the cost or benefit. This approach is generally consistent with the All Ratepayer Test approach taken in years past, but expands the approach to include all impacts that clearly result from the programs. We recognize that some factors will continue to be difficult to quantify. We do not establish a percentage adder to represent those factors. Rather, we intend to quantify when possible and simply report program effects when quantification is not possible.

Subsection 4(A)(1) lists benefits to be included in the cost effectiveness calculation. Avoided electric generation costs will be estimated using regional prices. The proposed rule states that an average generation cost is adequate, but that more precise estimates based on time differentiation may be used when appropriate. Avoided T&D costs will rely on T&D utilities' marginal cost estimates, which also may be averages or time differentiated estimates. In the inquiry, utilities commented that their marginal cost estimates are imprecise. However, they are the most appropriate quantities available. Avoided fuel savings will include reduced use of oil, gas, or any other fuels saved. The rule does not specify a method for calculating fuel savings – we will use the best estimate available. Similarly, avoided costs of water, sewer, or any other resource will be estimated as accurately as is possible and reasonable. Finally, subsection (e) establishes that any other benefit that we can reasonably quantify will be included in the cost effectiveness test. We conclude that these benefits are important outcomes of conservation programs – sometimes by design and sometimes by good fortune – and they should be acknowledged whenever possible.

Subsection 4(A)(2) lists costs to be included in the cost effectiveness calculation. Direct program costs listed in subsection (a) and capital costs associated with the purchase and installation of appliances or equipment, listed in subsection (b), are traditional costs included in cost effectiveness tests. Subsection (c) lists other costs such as increased customer operation and maintenance costs. Considering such costs is consistent with considering all benefits that can be recognized as resulting from a program.

In its comments in the rulemaking, BHE suggests that we consider lost utility profits as a program cost, noting that lost utility revenue is a societal cost and will ultimately result in higher rates. We reject BHE's suggestion. To the extent that a

utility's rates exceed its marginal delivery costs, a utility will lose revenue if a conservation program lowers total kWh use. That loss is a transfer-payment from the utility's stockholders (in the short term) to program participants. The utility's monetary loss is offset by participants' economic gains (whether through lower costs for similar productivity or through increased productivity at a lower price than would have occurred absent the program). At the heart of the economic tests used in most states and in Maine has been the policy decision that lowering society's overall expense of using electricity without lowering productivity level is a desirable goal. Historically, a transfer of funds has occurred under Total Resource Cost Tests, All-Ratepayer Tests, and Societal Tests, and has been mitigated by offering a wide range of programs to all ratepayers. Currently, very few programs that reduce kWh use would pass a test that included lost utility profits as a cost. It is unlikely that the Legislature intended us to establish a cost effectiveness test that excluded virtually all programs that reduce kWhs. Thus, our final rule treats lost utility profits in the manner they have been treated historically in cost effectiveness tests.

We note, moreover, that conservation programs will not always lower kWh use. The Act includes many goals, including the goals that programs "create more favorable market conditions for the increased use of efficient products and services" and "promote sustainable economic development." We have incorporated those goals into our goals, objectives, and strategies, and have also stated that programs shall "improve the efficiency of electric energy use by Maine residential consumers, businesses and other organizations."<sup>12</sup> In our Order Approving Goals, Objectives, and Strategies, we assert that programs will not reduce kWhs per se, but will improve electric efficiency. Programs that meet these goals may *increase* utility sales, thereby improving, not harming, a utility's profits.

CMP suggests that we include the Rate Impact Test in a manner similar to its use in Chapter 380-O. According to CMP, under this approach the Commission would consider a program's impact on rates, rejecting the program if the impact exceeded a pre-defined level. CMP suggests that the 1% specified in Chapter 380-O would be reasonable.

We agree that we should consider the impact on rates from the portfolio of programs, and would do so as a matter of our normal approach to utility matters. However, we reject setting a specific rate impact that would automatically require program rejection. As discussed earlier in the order, the 1% level in Chapter 380-O only prohibited the utility from implementing a program without Commission approval. The Commission still retained the flexibility to use its judgment in balancing the rate impact with the program benefits. The breadth of the Act requires us to consider even more goals than we did under Chapter 380-O, and we intend to retain that flexibility to do so. Thus, in subsection 3(C) of the final rule we have added the provision that we must consider the likely impact of the full portfolio of conservation programs on a utility's rates, but we do not specify a level that would trigger program

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<sup>12</sup> See Order Approving Goals, Objectives, and Strategies for Conservation Programs, issued September 24, 2002 in Docket No. 2002-162.

rejection and we do not state any action that must be taken based on our consideration. Under the final rule, we will weigh the program benefits with the harm to utilities and their ratepayers given the conditions at the time.

BHE and CMP comment that “non-electric benefits”<sup>13</sup> should not be included in the MST. CMP advocates using the methods used in the All Ratepayers Test, which CMP asserts did not include such benefits as increased amenities and decreased operating expenditures not related to electricity use. CMP contends that quantifiable externalities may be considered as program benefits, but only if an All Ratepayers Test is first satisfied. BHE advocates capping non-electric participant benefits to participant costs, and capping non-electric benefits at some portion of total benefits. CMP notes that the All Ratepayers Test emphasized avoided cost benefits, while the MST is overly expansive. CMP quotes Commissioner Diamond in his separate concurring statement to the June 13 Order in Docket No. 2002-161 as asserting that it is difficult if not impossible to measure non-electric benefits such as environmental benefits. Both utilities comment that the programs are funded by electric ratepayer money and should be targeted to electric savings. On the other hand, OPA supports inclusion of non-electric benefits in the MST. OPA states that the Legislature has given the Commission a new mandate to “consider, without limitation” programs that promote sustainable economic development and reduce environmental damage. The OPA believes that a strict All Ratepayers Test is “neither necessary nor feasible” under the new mandate, and that it is appropriate to consider both quantifiable externalities and non-ratepayer specific benefits that result from a conservation program.

We agree that programs should be targeted to savings associated with how a customer uses and obtains electricity. However, we disagree that savings such as reduced operating expenses and alternative fuel savings should be excluded from the cost effectiveness test. As long as such savings result from the electric efficiency measure, they are a savings of the program and should be considered in a cost effectiveness test. We disagree with an implication that Commissioner Diamond asserted that *all* non-electric benefits are difficult to quantify; indeed many will be easily quantified. The Act allocates ratepayer funds to implement programs that are beneficial for reasons that extend far beyond avoided generation and T&D utility costs. The Act targets economic development and environmental benefits in particular. The Act directs the Commission to make an investment decision on behalf of the citizens of Maine. When making an investment decision, one considers all savings associated with the investment. While we agree that a program must focus primarily on electric use, we see no reason to ignore a subset of savings that result when the electricity measure is undertaken. Thus, the final rule retains the “non-electric” benefits contained in the proposed rule.

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<sup>13</sup> Within this order, operating costs, deferred replacement costs, and reduced water or fossil fuel costs are called non-electric costs. However, they are the *result* of an electric efficiency decision. We do not suggest that a program that does nothing more than reduce oil usage could be considered an electric energy efficiency program under the Act.

Having stated our decision regarding the cost effectiveness test that is required before we will fund a program, we turn to a different decision – namely, the amount of funds we will commit to customer incentives within a program. We acknowledge that non-electric savings such as reduced maintenance and non-fuel costs benefit only the participant, while avoided generation and T&D costs generally benefit all electric users. This becomes relevant because we desire that the program portfolio benefit as many consumers as possible. With this concern in mind, we are initially inclined to limit the incentive we award participants to the level of savings attained through avoided generation and T&D delivery costs. This approach would address many of BHE's and CMP's concerns. We decline to adopt a rigid provision that requires imposing this limitation. Rather, we will judge each situation on its merits. Thus, in Section 4(A)(6) of the final rule, we have added the sentence that the Commission consider the value of the program savings associated with electrical production and delivery when setting incentive values.

In addition, we observe that environmental benefit in the form of reduced emissions has, for many years, been considered by some to be an important benefit of conservation programs. The current law is no exception. The Act contains a goal of attaining environment benefits, yet program proposals made to us have contained no estimates – either quantified or not -- of environmental impact. While it is difficult to determine precise quantification of this benefit, it is not impossible to produce estimations. We ask persons who view environmental improvement to be important to submit program suggestions that explicitly target environmental improvement. For example, a program that reduces energy use or demand at a time when the marginal generating units produce high emissions would help us fulfill the Act's environmental goal. We also ask all persons submitting program proposals to provide, if possible, information on the environmental impact of the program. Finally, we intend to issue a solicitation, separate from this order, that requests proposals for conservation programs that explicitly target environmental improvement as a primary goal. These actions will allow us to include programs in our portfolio that may reasonably be considered to meet the environmental goal of the Act.

Finally, BHE and CMP recommend that the Commission reject non-quantifiable benefits in the MST. CMP comments that the All Ratepayers Test was a "simple, objective, mathematical test" while the MST is imprecise and encourages disputes and second-guessing. In our view, the Act clearly rejects a "simple, objective, mathematical" view of cost effectiveness by including a variety of broad and difficult-to-quantify goals. As pointed out by the Public Advocate in his comments, the Act requires that the Commission exercise judgment when determining cost effectiveness and when balancing goals. The fear of less than perfect precision should not cause us to ignore important benefits that are consistent with the intent of the Act. The proposed rule used terms such as "reasonably identifiable costs" (subsection 4(2)(a)) and "to the extent such costs can be reasonably quantified and valued" (subsection 4(2)(c)). We consider these phrases to be adequate protection against disputes or abuse and have not changed them in the final rule.

In the proposed rule, subsection 4(A)(3) established guidelines for the discount rate to be used in cost effectiveness calculations. We commented that the cost effectiveness of a program is calculated from the perspective of Maine consumers as a whole (as opposed to only the participant). Thus, the discount rate should be a societal discount rate. Long-term treasury securities yields are reasonable for this purpose.

In its comments in the rulemaking, BHE suggests that, for each program, the Commission choose a discount rate that reflects the risk profile of the program. BHE points out that some measures are short-lived and that some costs and benefits cannot be predicted with certainty. In our view, establishing a discount rate to use when evaluating most programs establishes consistency and predictability and creates a result that is reasonably accurate. However, consistent with comments made earlier in this order, this rule should not limit our ability to exercise judgment. We acknowledge that variability in certainty and measure life exists. Thus, while we decline to state a prescribed method for linking risk to the discount rate, in subsection 4(A)(3) of the final rule we have introduced the flexibility to consider alternative discount rates when conditions warrant doing so.

Subsection 4(A)(4) establishes that costs and benefits will all be measured on a comparable, net present value, basis. This is a traditional, established calculation method. No person suggested changing this subsection.

Consistent with our intent to consider all costs and benefits that can be recognized, subsection 4(A)(5) establishes that costs and benefits will be estimated for as many years in the future as seems reasonable.

### 3. Subsection B – Non-Quantifiable Cost Effectiveness Test.

Subsection B of section 4 accommodates programs that satisfy statutory or Commission-established goals but whose benefits cannot be quantified. While we will measure costs and benefits whenever possible, we conclude that there are programs that will benefit consumers in Maine, or that meet statutory criteria, but whose benefits cannot be reliably estimated. Indeed, there may be requirements of the Act that cannot be met if all programs must pass the Modified Societal Test. In particular, it may be impossible to spend 20% of total funds on low-income or small business programs and it may be impossible to conduct energy education as the Act contemplates, unless programs with non-quantifiable benefits are considered. The subsection includes three criteria, all of which must be met, before a program can be implemented without passing the Modified Societal cost effectiveness test. Subsection 4(B)(1) allows a program with non-quantifiable benefits to be implemented, while subsection 4(B)(2) establishes that the program must meet statutory or Commission-established goals and subsection 4(B)(3) establishes that the entire portfolio must be substantially cost effective.

This subsection creates the possibility that a program whose benefit-to-cost ratio *is* quantifiable but is less than one, and that meets particular goals,

cannot be implemented. However, a program whose benefit-to-cost ratio *is not* quantifiable, and meets the same goals, may be implemented.

In its comments in the rulemaking, MCAA supports the inclusion of a non-quantifiable cost effectiveness criteria, calling the provision “forward-looking.” MCAA comments that this provision will allow the Commission to implement “cutting edge” ideas to determine whether they are successful. BHE expresses the concern that subsection 4(B) could result in abuse and reiterates the suggestion that non-quantifiable benefits be limited to a portion of total benefits. While we decline to specify such a percentage, as a practical matter we expect to limit our funding of programs with non-quantifiable benefits.

In the inquiry, we invited interested persons to express their views on whether there should be a quantitative standard for the distribution of benefits. To elaborate, the MST looks at benefits and costs in the aggregate. We wondered whether the Commission also should be required to find that benefits will exceed costs for some minimum percentage of Maine consumers. For example, if it were determined that for a particular portfolio of programs the benefits will exceed the costs in the aggregate (i.e., the portfolio passes the Modified Societal Test) but that only 20% of consumers will actually receive more in benefits than they pay in costs, should that portfolio be deemed cost effective?

The OPA does not support this approach, commenting that, given limited resources, it would foreclose many programs, particularly those in smaller service territories. BHE comments that resources should not be diverted from high benefit programs in favor of high penetration programs. We did not introduce such a provision in the final rule.

In the inquiry, we also welcomed comments on whether the existence of statutory requirements that certain percentages of the spending be directed at specified groups and that all groups be given the opportunity to participate warrants the conclusion that the Legislature did not expect the Commission to deal further with distributional equity issues. Even if one answers this question in the negative, we asked whether it is realistic to expect the Commission to be able to determine the percentage of ratepayers who will have a benefit-to-cost ratio in excess of 1 (or a net benefit greater than 0) for a particular program or portfolio of programs. Finally, given the Commission’s conclusion that the Rate Impact Test is not feasible in a restructured environment, which means that some and perhaps many ratepayers may have costs in excess of benefits from these programs, we inquired whether the Commission should suggest to the Legislature that it may want to reexamine the statute.<sup>14</sup>

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<sup>14</sup> We stated that this would not necessarily mean abandoning the concept of imposing an assessment on ratepayers for the purpose of achieving societal goals related to the use of electricity. To the contrary, we wondered whether there are more effective ways to achieve the environmental objectives associated with conservation programs.



The OPA suggests that, in the Act, the Legislature has already determined the distributional equity it considers to be appropriate. The Commission should not delve further into the issue. BHE suggests that the Act should be re-evaluated. We made no change in the final rule based on these comments.

E. Section 5: Funding Level

Section 5 of the proposed rule restates the terms in the Conservation Act that establish a funding mechanism for the conservation programs. We include this restatement of law so that Chapter 380 will be a comprehensive compendium of the basic State conservation program requirements. Subsection A directly quotes the Act, and describes the upper and lower bounds of the amounts the Commission will assess T&D utilities to fund the programs. Subsections C and D directly quote the Act, and describe the means by which the Commission will categorize the budget and spending of the funds assessed. Subsection B is not contained in the Act. It establishes broad guidelines for determining the dollar amount that we will assess as time goes by. It states that the Commission's periodic assessment will be based on projections of the factors<sup>15</sup> that determine the assessment, but that reconciliation will occur to ensure that the assessment over time comports with the actual values of those factors.

No person suggested changes to Section 5 and we have made no changes in the final rule.

F. Section 6: Waiver or Exemption

Section 6 contains terms governing waiver or exemption from the Chapter. These terms are standardized throughout the Commission's rules. No person suggested changes to Section 6 and we have made no changes in the final rule.

#### **IV. RULEMAKING PROCEDURES**

Pursuant to 35-A M.R.S.A. § 1311-A (10), this rule is considered to be a "routine technical rule" as defined in Title 5, chapter 375, subchapter II-A.

#### **V. FISCAL IMPACT**

5 M.R.S.A. § 8057-A(1) requires the Commission to estimate the fiscal impact of this Chapter. In the NOR, we indicated that there is no fiscal impact through the rule, but that there is a fiscal impact associated with enactment of the Conservation Act, as described by the fiscal note attached to LD 420. No person commented on the fiscal impact.

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<sup>15</sup> Pursuant to the Act, assessments must be capped at 1.5 mils per kWh, but must be no less than 0.5% of revenues. Currently, we assess CMP based on its kWh sales, and we assess all other utilities based on revenues. We will determine the basis – whether sales, revenues, or some other factor – and the level for long-term assessments in future proceedings.

Accordingly, we

**O R D E R**

1. That the attached Chapter 380 "Electric Energy Conservation Programs" is hereby adopted;
2. That the Administrative Director shall file the adopted rule and related materials with the Secretary of State; and
3. That the Administrative Director shall notify the following that the Commission has adopted the attached rule:
  - a. All transmission and distribution utilities in the State;
  - b. All persons who have filed with the Commission within the past year a written request for copies of this or any other notices of Rulemaking;
  - c. The Office of the Public Advocate; and
  - d. The service list in this docket and all interested persons in Docket Nos. 2002-161, 2002-162 and 2002-272.
4. That the Public Information Coordinator shall post a copy of this Order and rule on the Commission's World Wide Web page (<http://www.state.me.us.mpuc>).
5. That the Administration Division shall send copies of this Order and the attached rule to: Executive Director of the Legislative Council, 115 State House Station, Augusta, ME 04333-0115 (20 copies).

Dated at Augusta, Maine, this 6<sup>th</sup> day of November, 2002.

**BY ORDER OF THE COMMISSION**

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Dennis L. Keschl  
Administrative Director

COMMISSIONERS VOTING FOR:      Nugent  
   Diamond  
   Welch

## Appendix A

### Components of Cost Effectiveness Tests

Test	Participants	Utility Cost	All Ratepayers	Total Resource	Societal
<b>Measures</b>					
Participants	y	y	y	y	y
Spillover (a)			y	y	y
Free Riders (b)		y	y	y	y
Post Program Adopters (c)				y	y
<b>Benefits</b>					
Avoided electricity					
Energy	(1)	y	y	y	y
Capacity		y	y	y	y
T&D		y	y	y	y
Avoided resources					
Gas & oil	(1)			y	y
Water & other	(1)			y	y
Customer benefits	y		y	y	y
Other benefits					
quantified					y
non-quant. Adder (d)				(2)	(2)
<b>Costs</b>					
Program costs		y	y	y	y
Customer Costs	y		y	y	y
Performance incentives (e)				(3)	(3)

#### Notes

- 1 At retail rates
- 2 Adders included in some states
- 3 Incentives included in some states

#### Definitions

- a Those EEM's installed as a result of, but outside a program
- b Those EEM's that receive an incentive, but would have been purchased/installed even without the program
- c Those measures that are installed, outside of a program, after the program has ended
- d A percentage added to EEM benefits, to account for environmental benefits that have not been measured or quantified
- e Some states allow utilities to earn an incentive, based on their performance relative to a set of energy efficiency program metrics

## Appendix B

### Comparison of Cost Effectiveness

State	NH	VT	MA	RI	CT	NY	NJ	OH	TX	CA	PNW
Test	TRC	Societal	Mod.TRC	Mod.TRC	(3)	TRC	Societal			Societal	Societal
<b>Measures</b>											
Participants	y	y	y	y		y		y	y		y
Spillover	y	y	y	(2)		y					y
Free Riders		y	y								y
Post Program Adopters	y	y	y			y					y
<b>Benefits</b>											
Avoided electricity											
Energy	y	y	y	y		y		(5)	y		y
Capacity	y	y	y	y		y		(5)	y		y
T&D	y	y	y	y		y		(5)			y
Avoided resources											
Gas & oil	y	y	y			y					y
Water & other	y	y	y			y					y
Customer benefits	y	y	y			y		y			y
Other benefits											
quantified	y	y	y			(4)		y			y
non-quant. adder	15%	(1)							(6)		(7)
<b>Costs</b>											
Program costs	y	y	y	y		y		y	y		y
Customer Costs	y	y	y			y		y			y
Performance incentives	y	y	y	y							

#### Notes

- 1 Vt adds 0.07 cts/kwh for env. externalities and an 11% adder on benefits for risk mitigation.
- 2 RI includes participant spillover only
- 3 CT is in the process of reviewing tests; currently they use a TRC for res. & LI (some w/ a 15% adder) and a UCT for C&I
- 4 NY includes non-resource benefits only where they could be reasonably quantified, and thus are probably understating them
- 5 OH uses retail electricity prices, and assesses programs from a customer perspective
- 6 TX uses a 20% adder in non-attainment areas only
- 7 OR adds a 10% conservation credit; MT uses 15%; ID & WA don't have an adder